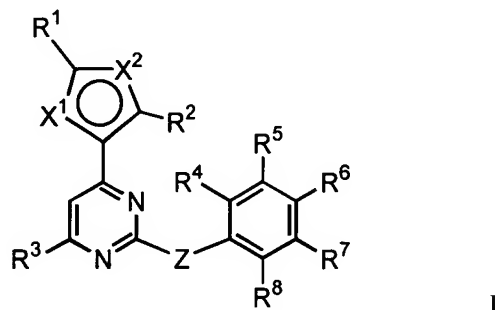


Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A compound of general formula I:



wherein:

~~one of X¹ is CR⁹ and X² is NR¹⁰ and the other of X¹ and X² is CR⁹;~~

X² is NR¹⁰;

~~Z is NH, NHCO, NHSO₂, NHCH₂, CH₂, CH₂CH₂, or CH=CH;~~

R¹, R², R³, R⁹ and R¹⁰ are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), NH-aryl, N-(aryl)₂, COOH, COO-R', COO-aryl, CONH₂, CONH-R', CON-(R')(R''), CONH-aryl, CON-(aryl)₂, SO₃H, SO₂NH₂, CF₃, CO-R', or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

R⁴, R⁵, ~~R⁶~~, R⁷, and R⁸ are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO₂, CN, OH, substituted or unsubstituted alkoxy, NH₂, NH-R', N-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, or CF₃;

R⁶ is H, substituted or unsubstituted lower alkyl, halogeno, NO₂, CN, OH, substituted or unsubstituted alkoxy, NH₂, NH-R', N-(R')(R''), COOH, COO-R', SO₃H, SO₂NH₂, or CF₃;

wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

~~with the proviso that when R¹ and R² are H, X¹ is NH, X² is CH, and R³ is H, the phenyl group is not —~~

~~unsubstituted,~~

~~4-ethyl,~~

~~3-methyl,~~

~~3-(1,1,2,2-tetrafluoroethoxy),~~

~~3,4,5-trimethoxy,~~

~~when the other groups R⁴-R⁸ are H;~~

~~and~~ or a pharmaceutically acceptable salts thereof.

2. (Currently Amended) A compound according to claim 1, wherein;

~~X¹ and X² are CR⁹ and NH respectively;~~

- R¹, R², R³ and R⁹ are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, CF₃, and CO-R' wherein alkyl, aryl and aralkyl groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

~~Z is selected from NH, NHSO₂ and NHCH₂;~~

- R⁴-R⁸ are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), C₁₋₄ alkyl and substituted C₁₋₄ alkyl.

3. (Currently Amended) A compound according to claim 1 or 39, wherein Z is NH and R³ is H.

4. (Original) A compound according to claim 3, wherein R^1 , R^2 and R^9 are each independently H, halogeno, CN, NO_2 , $\text{CO}(\text{NH}_2)$, $(R''')\text{NH}(R')(R'')$ a C_{1-4} alkyl group or a heterocyclic group.
5. (Original) A compound according to claim 4, wherein when R^1 is halogeno, it is selected from chloro or bromo; when R^1 is alkylamino, it is diethylaminomethyl or dimethylaminomethyl; when R^1 is a heterocyclic group it is morpholin-4-ylmethyl or 4-methyl-piperazin-1-ylmethyl.
6. (Currently Amended) A compound according to claim 1 or 39, wherein R^1 is H or CN, and R^2 and R^9 are both methyl.
7. (Original) A compound according to claim 6, wherein R^1 is H.
8. (Original) A compound according to claim 7, wherein R^1 is CN.
9. (Currently Amended) A compound according to claim 1 or 39, wherein;
 R^4 , R^5 , R^6 , R^7 , and R^8 are independently from each other H, unsubstituted lower alkyl, halogeno, NO_2 , CN, OH, $\text{N}-(R')(R'')$, or CF_3 ;
wherein R' , R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;
10. (Original) A compound according to claim 9, wherein R^4 to R^8 are selected independently from H, F, NH_2 , NO_2 , OH, Cl, Br, I, CN, CH_2OH , CF_3 and dimethylamino.
11. (Currently Amended) A compound according to claim 9 ~~or 10~~, wherein R^4 and R^8 are both hydrogen.
12. (Original) A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethylpyrrol-3-yl)pyrimidineamines in which the phenyl group is 2-, 3-, 4- or 5-substituted by at least one of F, NH_2 , NO_2 , OH, Cl, Br, I, CN, CH_2OH , CF_3 or OMe.
13. (Original) A compound according to claim 12, wherein the phenyl group is mono-substituted by F, NH_2 , NO_2 , OH, Cl, Br, I, CH_2OH , CN, CF_3 or OMe at any of the 2,3, 4

or 5-positions, or di-substituted by 2,4-difluoro, 3,5-difluoro, 3,4-difluoro, 2,4-dichloro, 3,5-dichloro, 3,4-dichloro or 4-chloro-3-trifluoromethyl.

14. (Original) A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(3,5-dimethyl-1H-pyrrole-2-carbonitrile)pyrimidineamines in which the phenyl group is 2-, 3- or 4-substituted by at least one of F, NH(CH₃)₂, NO₂, OH, Cl, Br, I or CF₃.

15. (Original) A compound according to claim 14, wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at any of the 3 or 4-positions, or di-substituted by 4-methyl-3-nitro, 3-iodo-4-methyl, 4-chloro-3-methyl, 3-hydroxy-4-methyl, 4-fluoro-3-methyl or 4-methyl-3-fluoro.

16. (Original) A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 4-position.

17. (Original) A compound according to claim 16, wherein the phenyl group is substituted by a fluoro or NH(CH₃)₂ group.

18. (Original) A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-halogeno-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 3 or 4-positions.

19. (Original) A compound according to claim 18, wherein the phenyl group is substituted by a 4-fluoro or 3-nitro group, the halogeno group being chloro or bromo.

20. (Original) A compound according to claim 1, selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-dialkylaminoalkyl-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 4-position.

21. (Currently Amended) A compound according to claim 20, wherein the phenyl group is substituted by fluoro, and the dialkylaminoalkyl group is preferably being diethylaminomethyl or dimethylaminomethyl.

22. (Currently Amended) A compound according to claim 1, selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-(heterocycle)-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is ~~preferably~~ mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 4-position.

23. (Currently Amended) A compound according to claim 22, wherein the phenyl group is substituted by fluoro, and the heterocycle group is ~~being~~ 5-morpholin-4-ylmethyl or 4-methyl-piperazin-1-ylmethyl.

24. (Currently Amended) A compound ~~according to claim 1~~ selected from:
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
(3,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(4-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(3,5-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
4-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
3-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
(2,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(2,4-Dichloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine ;
(4-Chloro-3-trifluoromethyl-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-trifluoromethyl-phenyl)-amine;
(3-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
N-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
(3-Chloro-4-iodo-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-fluoro-4-iodo-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;
[4-(3,5-Dimethyl-1H-pyrrol-2-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
(4-Fluoro-phenyl)-[4-(1,2,4-trimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
[4-(5-Amino-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine; and
{4-[2,4-Dimethyl-5-(4-methyl-piperazin-1-ylmethyl)-1H-pyrrol-3-yl]-pyrimidin-2-yl}-(4-fluoro-phenyl)-amine.

25. (Original) A compound according to claim 24 selected from;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
(3,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(4-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(3,5-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
4-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
3-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
(3-Chloro-4-iodo-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-fluoro-4-iodo-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;
(4-Fluoro-phenyl)-[4-(1,2,4-trimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine, and

{4-[2,4-Dimethyl-5-(4-methyl-piperazin-1-ylmethyl)-1H-pyrrol-3-yl]-pyrimidin-2-yl}-(4-fluoro-phenyl)-amine.

26. (Original) A compound according to claim 25 selected from;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;

3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;
[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine, and
[4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine.

27. (Original) A compound according to claim 26 selected from;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;

[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine; [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine, and [4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine.

28. (Currently Amended) A compound according to claim ~~39~~¹, wherein;

- X¹ and X² are NH and CR⁹ respectively;

- R¹, R², R³ and R⁹ are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, CF₃, and CO-R' wherein alkyl, aryl and aralkyl groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

- Z is selected from ~~NH~~, NHSO₂ and NHCH₂;

- R⁴, R⁵ and R⁸ are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), C₁₋₄ alkyl and substituted C₁₋₄ alkyl;
- R₆ is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), methyl, propyl, butyl and substituted C₁₋₄ alkyl;
- R₇ is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, carbamoyl, sulfamyl, N(R')(R'') C₂₋₄ alkyl and substituted C₁₋₄ alkyl.

29. (Original) A pharmaceutical composition comprising a compound of claim 1 or a pharmaceutically acceptable salt thereof together with a pharmaceutically acceptable excipient.

Claims 30-34 (Cancelled).

35. (Currently Amended) A method of treating a subject for a CDK dependent proliferative disorder, comprising administering to a subject a compound of claim 1 or a

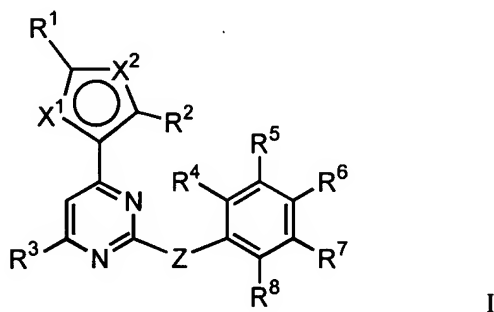
pharmaceutically acceptable salt thereof, such that said CDK dependent proliferative disorder in said subject is treated.

36. (Original) The method of claim 35, wherein the proliferative disorder is cancer or leukaemia.

37. (Original) The method of claim 35, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

38. (Currently Amended) The method of claim 37, wherein the CDK enzyme is CDK2 and/or CDK4.

39. (New) A compound of general formula I:



wherein:

one of X^1 and X^2 is NR^{10} and the other of X^1 and X^2 is CR^9 ;

Z is $NHCO$, $NHSO_2$, $NHCH_2$, CH_2 , CH_2CH_2 , or $CH=CH$;

R^1 , R^2 , R^3 , R^9 and R^{10} are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO_2 , CN, OH, alkoxy, aryloxy, $(R''')_nNH_2$, $(R''')_nNH-R'$, $(R''')_nN-(R')(R'')$, NH-aryl, N-(aryl)₂, COOH, COO- R' , COO-aryl, $CONH_2$, $CONH-R'$, $CON-(R')(R'')$, $CONH$ -aryl, CON -(aryl)₂, SO_3H , SO_2NH_2 , CF_3 , CO- R' , or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO_2 , CN, OH, O-methyl, NH_2 , COOH, $CONH_2$ and CF_3 ;

R^4 , R^5 , R^6 , R^7 , and R^8 are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO_2 , CN, OH, substituted or unsubstituted alkoxy, NH_2 , $NH-R'$,

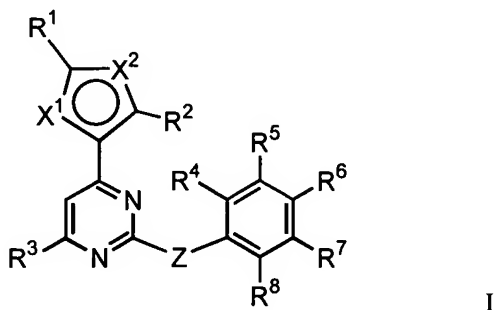
N-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, or CF₃;

wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R¹ and R² are H, X¹ is NH, X² is CH, and R³ is H, the phenyl group is not

unsubstituted phenyl,
4-ethyl phenyl,
3-methyl phenyl,
3-(1,1,2,2- tetrafluoroethoxy) phenyl,
3,4,5-trimethoxy phenyl,
or a pharmaceutically acceptable salt thereof.

40. (New) A compound of general formula I:



wherein:

X¹ is NH;

X² is CR⁹;

Z is NH;

R¹, R², R³ and R⁹ are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, CF₃, and CO-R' wherein alkyl, aryl and aralkyl groups may be further

substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

R⁴, R⁵ and R⁸ are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), C₁₋₄ alkyl and substituted C₁₋₄ alkyl;

R⁶ is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), butyl and substituted C₁₋₄ alkyl;

R⁷ is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, carbamoyl, sulfamyl, N(R')(R'') C₂₋₄ alkyl and substituted C₁₋₄ alkyl;

wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R¹, R², and R³ are H, and X² is CH, the phenyl group is not unsubstituted phenyl, 3-methyl phenyl, 3-(1,1,2,2-tetrafluoroethoxy) phenyl, or 3,4,5-trimethoxy phenyl, or a pharmaceutically acceptable salt thereof.

41. (New) A pharmaceutical composition comprising a compound of claim 39 or 40 or a pharmaceutically acceptable salt thereof together with a pharmaceutically acceptable excipient.

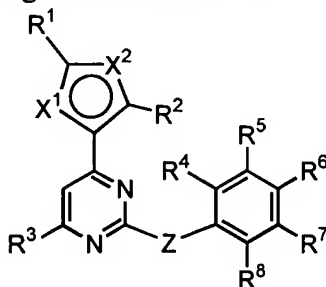
42. (New) A method of treating a subject for a CDK dependent proliferative disorder, comprising administering to a subject a compound of claim 39 or 40 or a pharmaceutically acceptable salt thereof, such that said CDK dependent proliferative disorder in said subject is treated.

43. (New) The method of claim 42, wherein the proliferative disorder is cancer or leukaemia.

44. (New) The method of claim 42, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

45. (New) The method of claim 44, wherein the CDK enzyme is CDK2 and/or CDK4.

46. (New) A method of treating a subject for cancer or leukemia, comprising administering to a subject a compound of general formula 1 or a pharmaceutically acceptable salt thereof, such that said cancer or leukemia in said subject is treated, wherein said compound of general formula 1 is.



I

wherein:

one of X¹ and X² is NR¹⁰ and the other of X¹ and X² is CR⁹;

Z is NH, NHCO, NHSO₂, NHCH₂, CH₂, CH₂CH₂, or CH=CH;

R¹, R², R³, R⁹ and R¹⁰ are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), NH-aryl, N-(aryl)₂, COOH, COO-R', COO-aryl, CONH₂, CONH-R', CON-(R')(R''), CONH-aryl, CON-(aryl)₂, SO₃H, SO₂NH₂, CF₃, CO-R', or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

R⁴, R⁵, R⁶, R⁷, and R⁸ are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO₂, CN, OH, substituted or unsubstituted alkoxy, NH₂, NH-R', N-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, or CF₃;

wherein R¹, R² and R³ are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R¹ and R² are H, X¹ is NH, X² is CH, and R³ is H, the phenyl group is not

unsubstituted phenyl,
4-ethyl phenyl,
3-methyl phenyl,
3-(1,1,2,2-tetrafluoroethoxy) phenyl,
3,4,5-trimethoxy phenyl,
or a pharmaceutically acceptable salts thereof.

47. (New) The method of claim 46, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

48. (New) The method of claim 47, wherein the CDK enzyme is CDK2 and/or CDK4.